

(No Model.)

I. F. HALL.
EDUCATIONAL APPARATUS.

No. 388,486.

Patented Aug. 28, 1888.

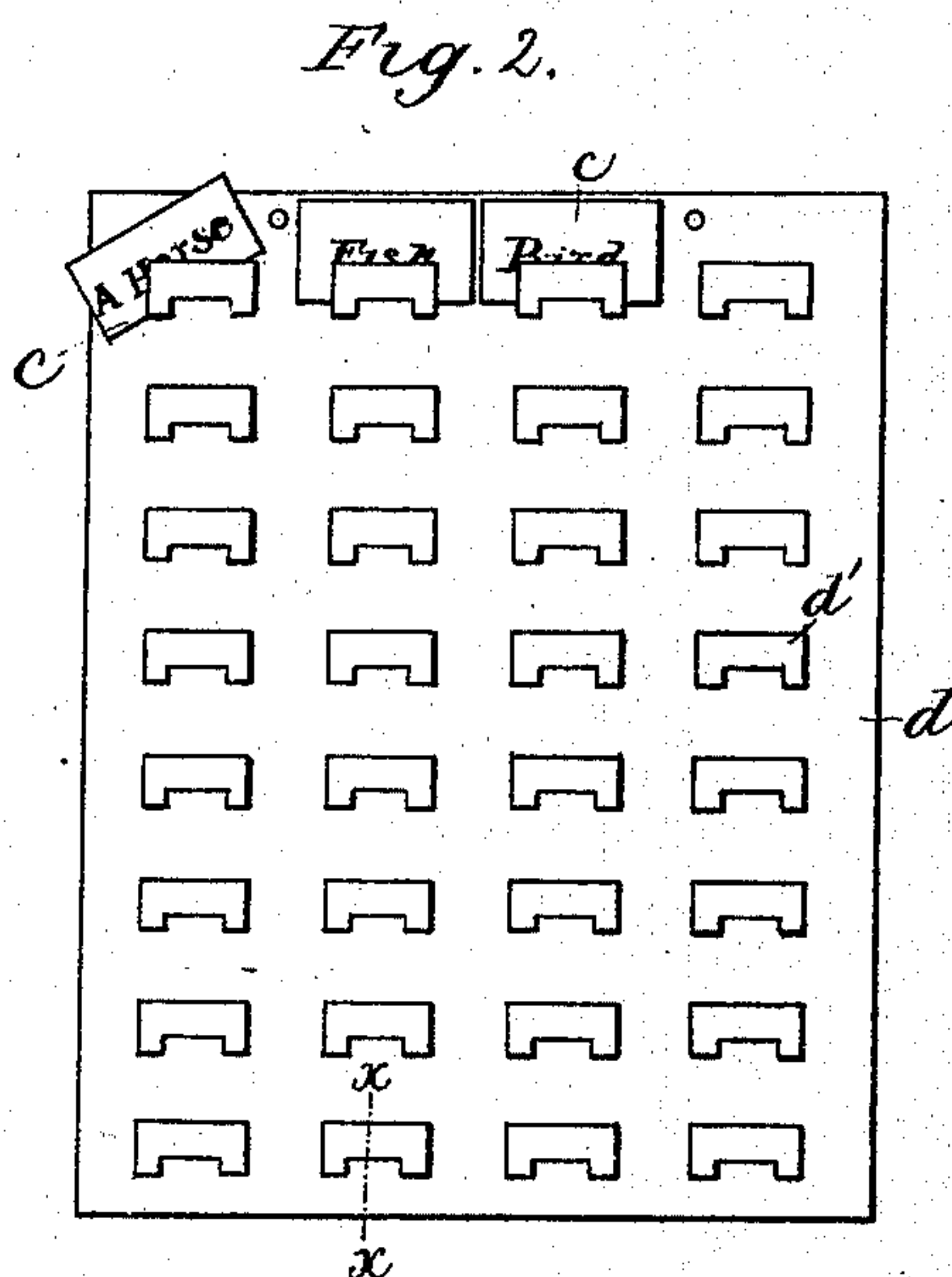
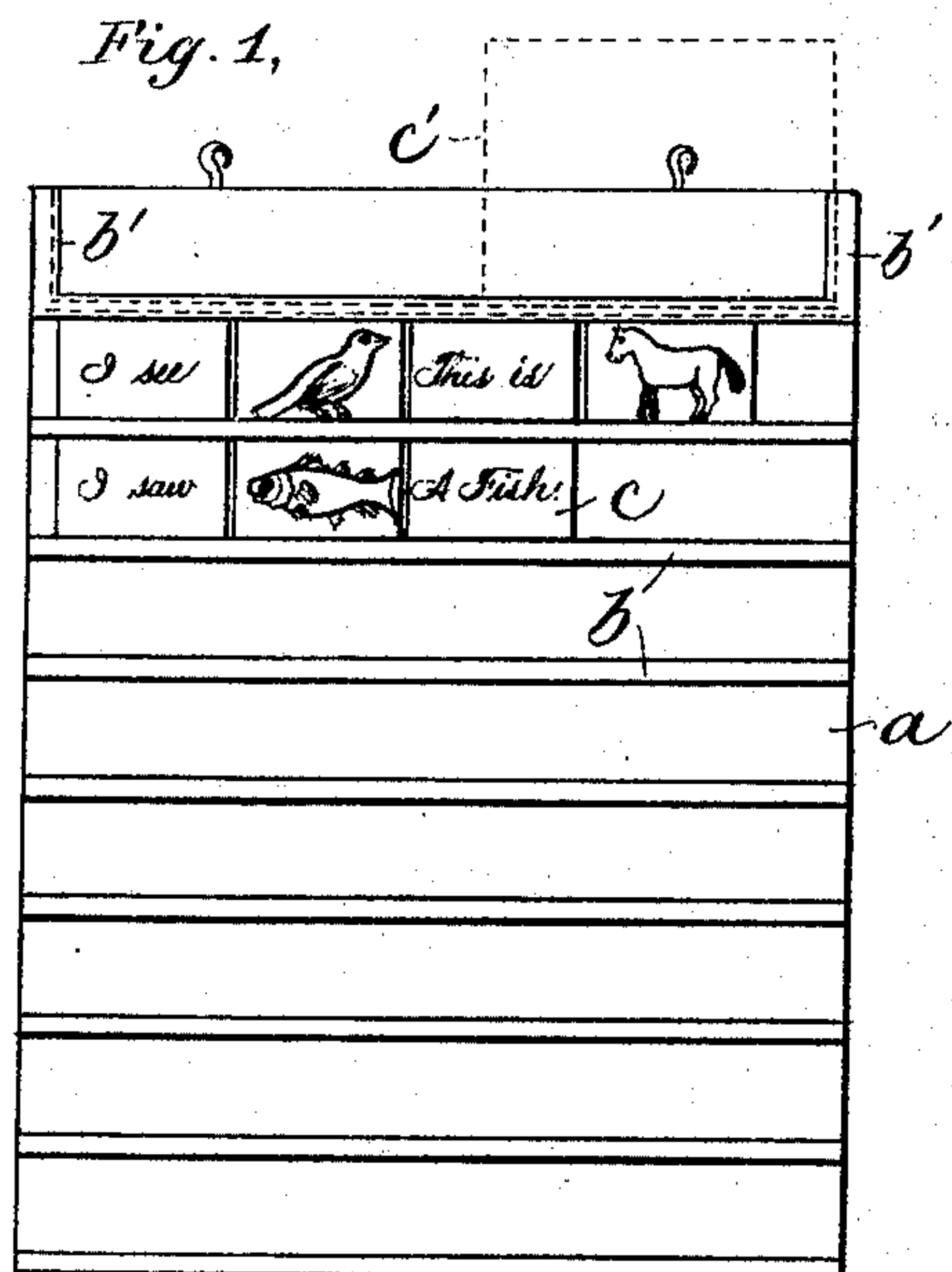


Fig. 3.

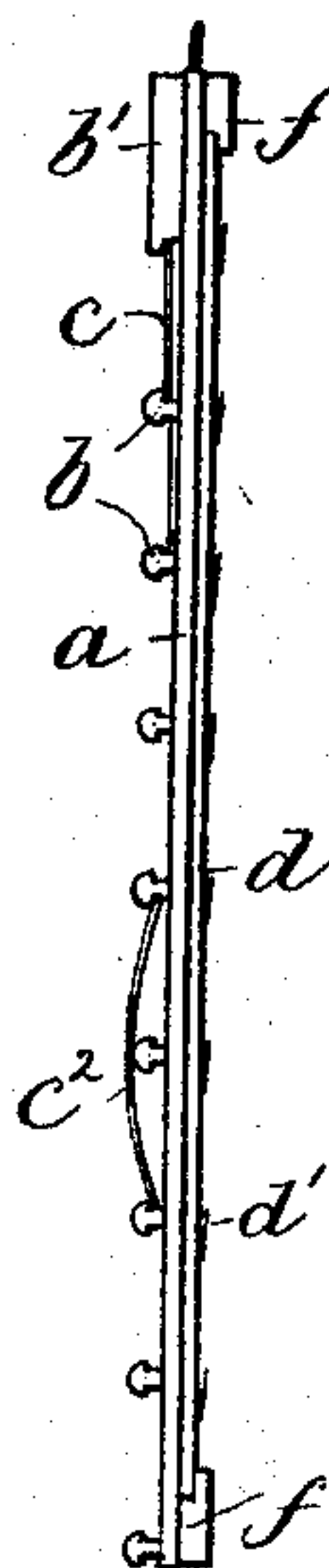


Fig. 4.

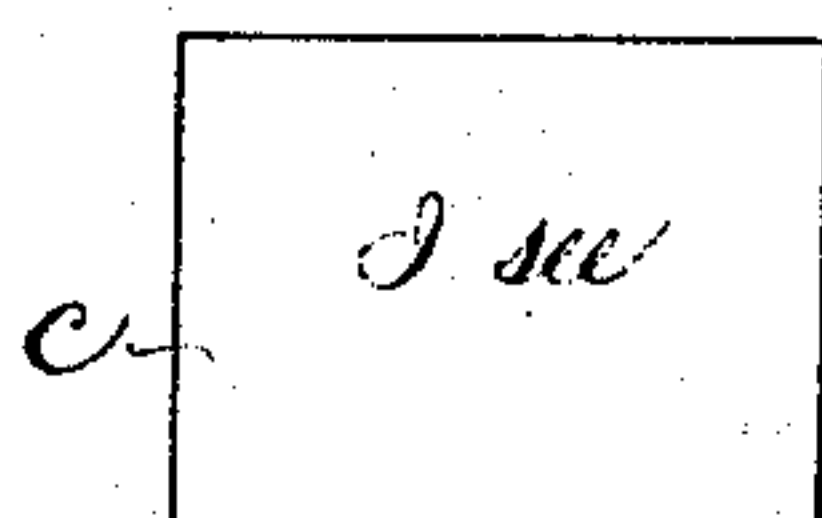


Fig. 5.

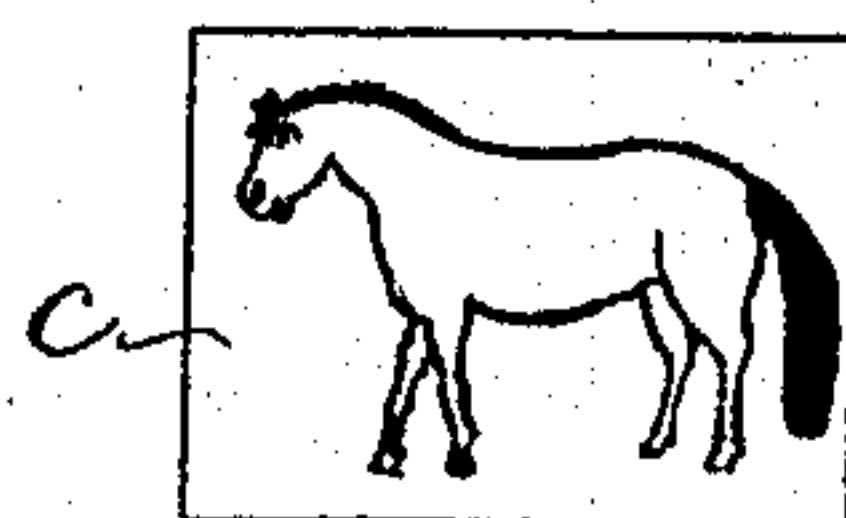


Fig. 6.



Witnesses,
H. P. Bates.
J. J. Maloney

Inventor.
I. Freeman Hall,
by Jos. P. Livemore
Atty.

UNITED STATES PATENT OFFICE.

ISAAC FREEMAN HALL, OF LEOMINSTER, MASSACHUSETTS.

EDUCATIONAL APPARATUS.

SPECIFICATION forming part of Letters Patent No. 388,486, dated August 28, 1888.

Application filed February 23, 1886. Serial No. 192,881. (No model.)

To all whom it may concern:

Be it known that I, ISAAC FREEMAN HALL, of Leominster, county of Worcester, State of Massachusetts, have invented an Improvement
5 in Educational Apparatus, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My invention relates to an apparatus for facilitating the instruction of children, being intended as a substitute for the charts or printed cards commonly used in schools.

The invention is embodied in apparatus comprising a board or frame provided with
15 guides or holders for cards, which may have words, figures, or pictures printed upon them, and which may be supported and manipulated in the frame so as to form sentences or represent arithmetical or other analogous operations.

20 The apparatus also comprises a holder or support for the different cards to be used, so that a number may be displayed at any time and the proper ones readily selected to be used in the frame in giving the lesson.

25 The frame is provided with means to receive the holder when not in use, so that the two parts of the apparatus may be put together to economize space, or for convenience in handling and transportation.

30 Figure 1 is a front elevation of a frame forming part of an educational apparatus embodying this invention; Fig. 2, a front elevation of the holder; Fig. 3, a side elevation of the frame having the holder connected with it; Figs. 4
35 and 5, face views of the cards on a larger scale; and Fig. 6, a sectional detail on line *xx*, Fig. 2, on a larger scale.

The apparatus comprises a frame, *a*, which may be of about the same size as the printed
40 charts used for classes in primary schools, and may be composed of a thin board or other suitable material. The said frame *a* is provided with a number of parallel transverse guides, *b*, which are rabbeted or grooved, as best
45 shown in Fig. 3, so as to receive the cards *c*, which may slide easily in the said grooves transversely to the board *a*, there being preferably sufficient space to permit the cards to slip over or pass by one another in the grooves.

50 The apparatus also comprises a displaying-

holder, *d*, Fig. 2, provided with means for supporting a number of the cards *c* until they are required for use on the frame *a*, thus enabling all the cards that may be required for a lesson to be supported and displayed in convenient
55 position and so that the desired one may be selected without loss of time. As herein shown, the holder *d* is composed of card-board and provided with a number of holding-clips, *d'*, each composed of a piece of sheet metal provided at the lower end with a tongue, *d''*, (see
60 Fig. 6,) which passes through a slit in the board *d*, so that the main portion of the piece of metal extends up at the front of the board *d*, forming a holder for the separate cards, as will be un-
65 derstood from Fig. 2.

Figs. 1 and 2 illustrate the method of using the apparatus in giving a reading lesson. A number of the cards are provided with pictures representing well-known objects, while
70 other of the cards have the names of the objects printed or written upon them, and other cards have additional words, which may be used with the names of the objects to form simple sentences, and in using the apparatus the
75 instructor may take first a picture of an object and place it in the grooves of a pair of the guides *b* of the board *a*, and then take other cards to form simple sentences, in which the name of the object occurs, as shown in the upper part of Fig. 1, after which the printed or
80 written name of the object may be used in connection with the picture, as shown in the second line of the board in Fig. 1, the name being slipped directly over the picture to conceal it, if desired. The various other meth-
85 ods of using the board for instruction in other subjects will readily suggest themselves.

The board *a* is also provided with upright grooved pieces *b'*, co-operating with the uppermost grooved guide *b* to receive and hold a
90 larger picture or card, as indicated at *c'*, than can be conveniently held in the lower guides *b*, and, if desired, cards may be used of sufficient size to engage the alternate guides *b*, as
95 shown at *c''* in Fig. 3; or they may be held between any two of the guides on the board, if need be.

The board *a* is provided on its rear side with grooved holding-pieces *f*, into which the
100

holder *d* may be slipped when not in use, thus enabling the entire apparatus to be conveniently handled or stored.

I claim—

- 5 The frame *a*, provided on one side or face with transverse guides and on its other side with holding-pieces *f*, combined with the card-holder *d*, adapted to be connected with the frame by the said holding-pieces, substantially
o as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ISAAC FREEMAN HALL.

Witnesses:

HENRY R. SMITH,

GEORGE M. POWERS.